Listing of the Claims:

The following is a complete listing of all the claims in the application, with an indication of the status of each:

Claims 1-12 (Canceled).

1   Claim 13 (New).   A computer implemented method for creating or
2   manipulating one or more drawings or sets of formatted data representing a
3   physical environment, comprising the steps of:
4   a) using a computer for creating, formatting, editing or
5   manipulating one or more objects defining an environment in which an in-
6   building or campus communications network may be deployed, said
7   environment having one or more of floors, walls, partitions, buildings,
8   building complexes or compounds, terrain, foliage, or other sites or
9   obstructions;
10   b) grouping a number of said one or more objects into at least one
11   editable layer;
12   c) verifying, using a computer, the sufficiency of said one or more
13   objects to ensure a useful definition of said environment and notifying a
14   user of results of said verification of sufficiency;
15   d) generating at least one formatted drawing or at least one set of
16   formatted data containing computer representations of said one or more
17   objects in a form transportable to and usable by a communications
18   engineering or network management application; and
19   e) rendering a three-dimensional view of said environment.

1   Claim 14 (New). The method of claim 13 further comprising the step of
2   adding or editing at least one object in said at least one editable layer or in
3   said at least one formatted drawing or in at least one set of formatted data.

1 Claim 15 (New). The method of claim 13 further comprising the step of

2 moving at least one object in said at least one one editable layer or in said

3 at least one formatted drawing or in at least one set of formatted data.

1 Claim 16 (New). The method of claim 13 further comprising the step of

2 modifying at least one object in said at least one editable layer or in said at

3 least one formatted drawing or in at least one set of formatted data.

1 Claim 17 (New). The method of claim 13 wherein said step of a) includes

2 the step of removing extraneous objects from said one or more objects or

3 from said at least one formatted drawing or in at least one set of formatted

4 data.

1 Claim 18 (New). The method of claim 13 wherein said step a) includes

2 the step of tracing and adding a traced object to said one or more objects or

3 more objects or from said at least one formatted drawing or in at least one

4 set of formatted data.

1 Claim 19 (New) The method of claim 13 wherein said step a) includes the

2 step of modifying one or more objects or one of electrical properties,

3 physical properties, aesthetic properties, or spatial configurations of one or

4 more objects.

1 Claim 20 (New). The method of claim 13 wherein said notifying

2 performed in said verifying and notifying step is performed in an automatic

3 fashion without feedback being provided to the user.

1 Claim 21 (New). The method of claim 13 wherein said notifying

2 performed in said verifying and notifying step is performed by prompting

3 the user and, when required to provide said useful definition, requires the

4   user to correct any insufficiencies in response to an insufficiency

5   notification.

1   Claim 22 (New). The method of claim 13 wherein said communications

2   engineering or network management application is selected from the group

3   consisting of wireless propagation models, measurement tools, component

4   placement or layout visualization tools, optimization tools, bill of materials

5   generating tools, asset management tools, and network performance

6   management or prediction tools.

1   Claim 23 (New). The method of claim 13 further comprising the step of

2   scaling at least part of said at least one formatted drawing or said at least

3   one set of formatted data or at least one object of said one or more objects.

1   Claim 24 (New). The method of claim 13 further comprising the step of

2   adding measurement data to said at least one of said one or more objects or

3   said at least one formatted drawing or said at least one set of formatted

4   data.

1   Claim 25 (New). The method of claim 13 further comprising the step of

2   specifying or invoking a propagation model for performing predictions of

3   performance.

1   Claim 26 (New). The method of claim 13 further comprising the step of

2   specifying or invoking a listing of communications equipment.

1   Claim 27 (New). An apparatus for creating or manipulating one or more

2   drawings or sets of formatted data representing a physical environment,

3   comprising:

4   computer implemented means for creating, formatting, editing or

5   manipulating one or more objects defining an environment in which an in-

6   building or campus communications network may be deployed, said

7   environment having one or more of floors, walls, partitions, buildings,

8   building complexes or compounds, terrain, foliage or other sites or

9   obstructions;

10   means for grouping a number of objects into at least one editable

11   layer;

12   means for verifying, using a computer, the sufficiency of said one

13   or more objects to ensure a useful definition of said environment and

14   notifying a user of results of said verification of sufficiency;

15   means for generating at least one formatted drawing or at least one

16   set of formatted data containing computer representations of said one or

17   more objects in a form transportable to and usable by a communications

18   engineering or network management application; and

19   means for rendering a three dimensional view of said environment.

1   Claim 28 (New). The apparatus of claim 27 further comprising a means

2   for adding or editing at least one object in said at least one editable layer or

3   in said at least one formatted drawing or said at least one set of formatted

4   data.

1   Claim 29 (New). The apparatus of claim 27 further comprising a means

2   for moving at least one object in said at least one editable layer or in said at

3   least one formatted drawing or said at least one set of formatted data.

1   Claim 30 (New). The apparatus of claim 27 further comprising a means

2   for modifying an object in said at least one editable layer or in said at least

3   one formatted drawing or said at least one set of formatted data in said one

4   layer of grouped objects.

1   Claim 31 (New). The apparatus of claim 27 further comprising a means

2   for removing extraneous objects from said one or more objects or from

3   said at least one formatted drawing or in at least one set of formatted data.

1   Claim 32 (New). The apparatus of claim 27 further comprising a means

2   for tracing and a means for adding a traced object to said one or more

3   objects or to said at least one formatted drawing or in at least one set of

4   formatted data.

1   Claim 33 (New). The apparatus of claim 27 further comprising a means

2   for modifying one or more objects or one or more of electrical properties,

3   physical properties, aesthetic properties, and spatial configurations of one

4   or more objects.

1   Claim 34 (New). The apparatus of claim 27 wherein notifying performed

2   by said means for verifying and notifying is performed in an automatic

3   fashion without feedback being provided to the user.

1   Claim 35 (New). The apparatus of claim 27 wherein notifying performed

2   by said means for verifying and notifying is performed by prompting the

3   user and, when required to provide said useful definition, requires the user

4   to correct any insufficiencies in response to an insufficiency notification.

1   Claim 36 (New). The apparatus of claim 27 wherein said communications

2   engineering or network management application is selected from the group

3   consisting of wireless propagation models, measurement tools, component

4   placement or layout visualization tools, optimization tools, bill of materials

5   generating tools, asset management tools, and network performance

6   management or prediction tools.

1   Claim 37 (New). The apparatus of claim 27 further comprising a means

2   for scaling at least part of said at least one formatted drawing or said at

3   least one set of formatted data or at least one object of said one or more

4   objects.

1   Claim 38 (New). The apparatus of claim 27 further comprising a means

2   for adding measurement data to at least one of said one or more objects

3   or said at least one formatted drawing or said at least one set of formatted

4   data.

1   Claim 39 (New). The apparatus of claim 27 further comprising means for

2   specifying or invoking a propagation model for performing predictions of

3   performance.

1   Claim 40 (New). The apparatus of claim 27 further comprising a means

2   for specifying or invoking a listing of communications equipment.